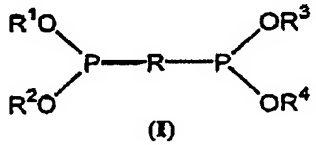
WHAT IS CLAIMED IS:

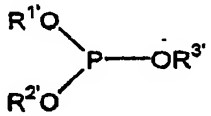
1. An adhesive silicone elastomer composition which can be crosslinked under hot conditions by polyaddition (hydrosilylation), this composition being of the type of those comprising:

- α/ at least one PolyOrganoSiloxane (POS) carrying ethylenic and/or acetylenic unsaturation(s) {POS comprising ≡Si-[unsaturation] units};
- β/ at least one polyorganosiloxane (POS) carrying ≡Si-H units;
- γ/ a catalytic combination comprising:
  - γ.1 at least one metal catalyst (preferably based on platinum)
  - γ.2 and at least one crosslinking inhibitor;
- δ/ a filler;
- ε/ at least one adhesion promoter;
- ρ/ at least one POS resin;
- λ/ at least one agent for stability toward heat;
- φ/ optionally at least one other functional additive;

characterized in that it is a single-component composition and in that the crosslinking inhibitor γ.2 is selected from the group of compounds of following formula (I) or (II):



(I)



(II)

in which:

R, R^1, R^2, R^3, R^4, $R^{1'}$, $R^{2'}$ and $R^{3'}$, which are identical

or different, represent a linear, branched or cyclic alkyl radical or a substituted or unsubstituted aryl radical, in particular:

i. a linear or branched alkyl radical having in particular from 2 to 30 carbon atoms (C), preferably from 2 to 12 C,

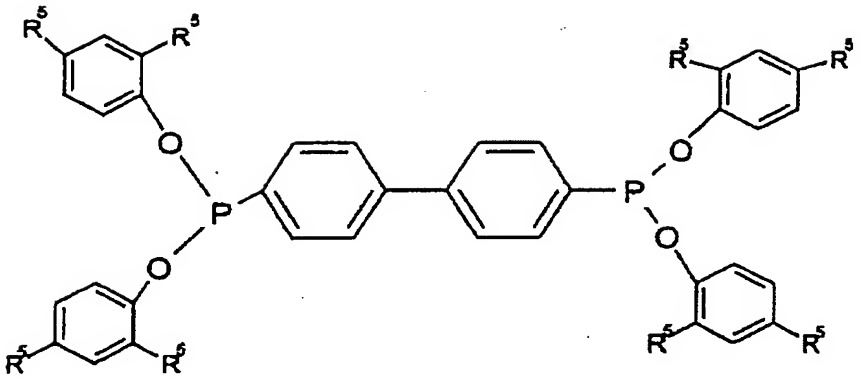
ii. an alkyl radical comprising one or more rings, in particular 1 or 2, it being possible for a ring to have in particular from 4 to 14 C, preferably from 5 to 8 C, or

iii. an aryl or alkylaryl radical comprising one or more fused or nonfused aromatic rings, in particular 1 or 2 rings, it being possible for a ring to comprise from 4 to 14 C, preferably from 6 to 8 C, optionally substituted by 1 or more, in particular from 1 to 2, linear or branched alkyl(s) having in particular from 1 to 12 C, preferably from 4 to 12 C.

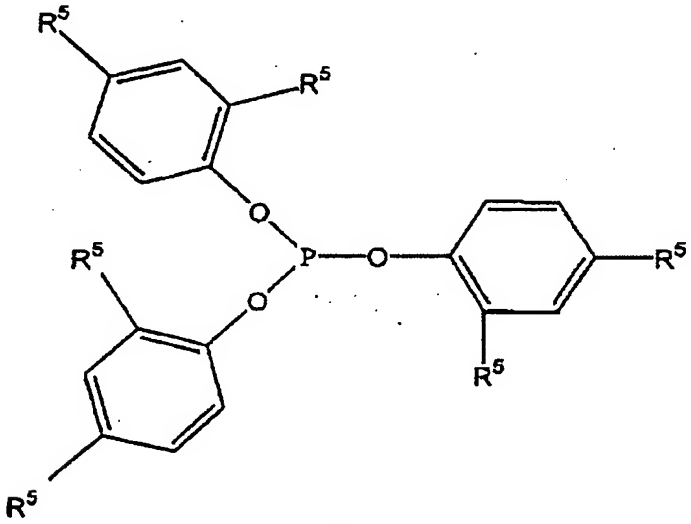
2. The composition as claimed in claim 1, characterized in that the R radical of the formula (I) of the inhibitor **γ.2** is a cyclic alkyl or an aryl radical, preferably the biphenyl radical.

3. The composition as claimed in claim 1, characterized in that the R^1, R^2, R^3, R^4, $R^{1'}$, $R^{2'}$ and $R^{3'}$ radicals of the formulae (I) and (II) of the inhibitor **γ.2** are cyclic alkyls, aryls or alkylaryls, preferably substituted phenyls.

4. The composition as claimed in claim 1, characterized in that the inhibitor **γ.2** corresponds to either of the following formulae (III) and (IV):



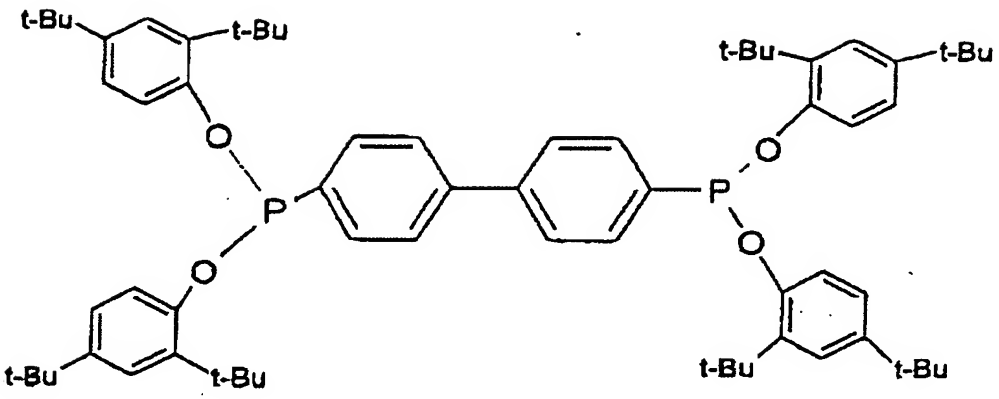
(III)



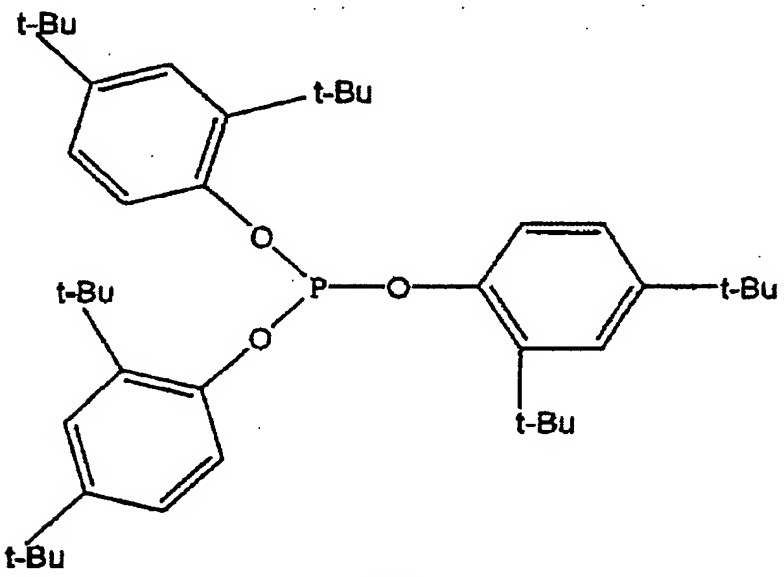
(IV)

in which the R^5 radicals, which are identical or different, preferably identical, are linear or branched alkyls having in particular from 1 to 12 C, preferably from 4 to 12 C.

5. The composition as claimed in claim 1, characterized in that the inhibitor γ.2 corresponds to the formula (V) or (VI):



(V)



(VI)

6. The composition as claimed in any one of claims 1 to 5, characterized in that the catalyst **γ.1** is a platinum catalyst.

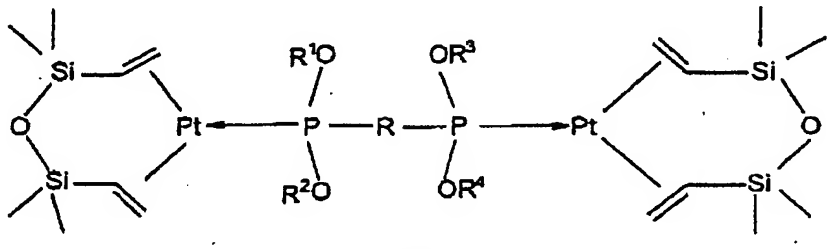
7. The composition as claimed in any one of claims 1 to 6, characterized in that the phosphorus of **γ.2**/platinum of **γ.1** ratio by weight is such that:

- $P/Pt \geq 1$,
- preferably, $5 \geq P/Pt \geq 1$,
- and, more preferably still, $4 \geq P/Pt \geq 1$.

8. The catalytic composition as claimed in claim 6, characterized in that the catalyst **γ.1** is a platinum/

unsaturated siloxane complex, preferably a platinum/vinylsiloxane complex and more preferably still a Karstedt complex.

9. The composition as claimed in claim 8, characterized in that the catalytic combination γ comprises the following chemical entity (I'):



(I')

in which:

R, R^1, R^2, R^3 and R^4, which are identical or different, represent a linear, branched or cyclic alkyl radical or a substituted or unsubstituted aryl radical, in particular:

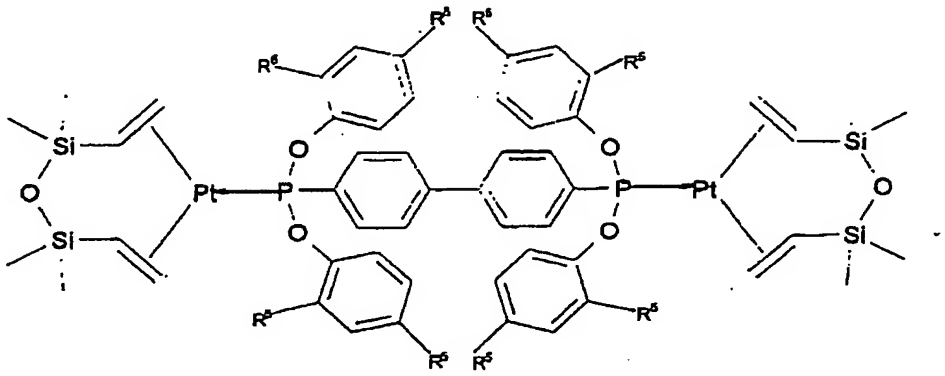
i. a linear or branched alkyl radical having in particular from 2 to 30 carbon atoms (C), preferably from 2 to 12 C,

ii. an alkyl radical comprising one or more rings, in particular 1 or 2, it being possible for a ring to have in particular from 4 to 14 C, preferably from 5 to 8 C, or

iii. an aryl or alkylaryl radical comprising one or more fused or nonfused aromatic rings, in particular 1 or 2 rings, it being possible for a ring to comprise from 4 to 14 C, preferably from 6 to 8 C, optionally substituted by 1 or more, in particular from 1 to 2, linear or branched alkyl(s) having in particular from 1 to 12 C, preferably from 4 to 12 C.

10. The composition as claimed in claim 9,

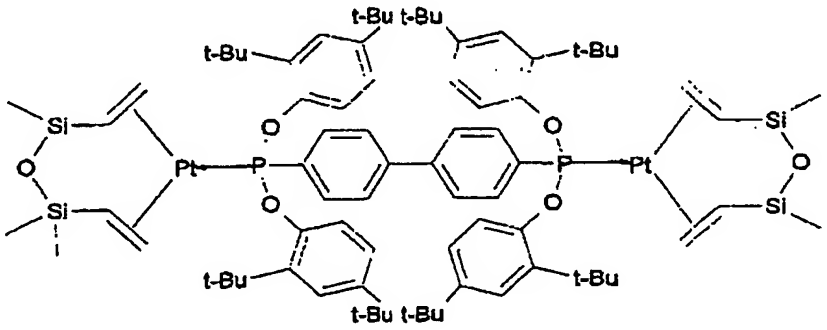
characterized in that the catalytic combination γ comprises the following chemical entity (III'):



(III')

in which the R^5 radicals, which are identical or different, preferably identical, are linear or branched alkyls having in particular from 1 to 12 C, preferably from 4 to 12 C.

11. The composition as claimed in claim 10, characterized in that the catalytic combination γ comprises the following chemical entity (V'):



(V')

12. The composition as claimed in claim 1, characterized in that:

- the α POS or POSs comprise siloxyl units

$$R^6_nSiO_{4-n/2}$$

and siloxyl units of formula:

$$Z_xR^6_ySiO_{4-x-y/2}$$

♦ the β POS or POSs comprise siloxyl units

$$R^6_nSiO_{4-n/2}$$

and siloxyl units of formula:

$$HR^6_wSiO_{4-w/2}$$

in which formulae the various symbols have the following meaning:

⇒ the R^6 symbols, which are identical or different, each represent a nonhydrolyzable group of hydrocarbon nature, it being possible for this radical to be:

* an alkyl radical having from 1 to 5 carbon atoms which can comprise from 1 to 6 chlorine atoms,
* cycloalkyl radicals having from 3 to 8 carbon atoms which can comprise from 1 to 4 chlorine atoms,
* aryl or alkylaryl radicals having from 6 to 8 carbon atoms which can comprise from 1 to 4 chlorine atoms,
* cyanoalkyl radicals having from 3 to 4 carbon atoms; methyl, ethyl, propyl, isopropyl, butyl, isobutyl, n-pentyl, t-butyl, chloromethyl, dichloromethyl, α-chloroethyl, α,β-dichloroethyl, β-cyanoethyl, γ-cyanopropyl, phenyl, p-chlorophenyl, m-chlorophenyl, 3,5-dichlorophenyl, trichlorophenyl, tetrachlorophenyl, o-, p- or m-tolyl, and xylyl, such as 2,3-dimethylphenyl or 3,4-dimethylphenyl, groups being preferred; methyl and phenyl radicals being particularly preferred;

⇒ the Z symbols represent a C_2-C_6 alkenyl group (preferably a vinyl group);

⇒ n = an integer equal to 0, 1, 2 or 3;

⇒ x = an integer equal to 0, 1, 2 or 3;

⇒ y = an integer equal to 0, 1 or 2;

⇒ the sum x + y lies within the range from 1 to 3,

⇒ w = an integer equal to 0, 1, 2 or 3.

13. The composition as claimed in claim 12, characterized in that it comprises:

- α/ - at least one POS exhibiting, per molecule, at least two C_2-C_6 alkenyl groups bonded to silicon;
- β/ - at least one POS exhibiting, per molecule, at least two hydrogen atoms bonded to silicon;
- γ/ - a catalytic combination as defined in claims 2 to 12;
- ε/ an adhesion promoter, preferably a binary adhesion promoter and more preferably still an adhesion promoter consisting of:
  - ⩓ ε.1 ⩓ at least one alkoxylated organosilane comprising, per molecule, at least one C_2-C_6 alkenyl group,
  - ⩓ ε.2 ⩓ at least one organosilicon compound comprising at least one epoxy radical;
- δ/ an inorganic and/or microsphere and/or hollow and/or expanded and/or expandable inorganic filler;
- ρ/ optionally at least one POS resin carrying T and/or Q, optionally M and/or D, siloxyl units and alkenyl-comprising siloxyl units, preferably vinyl-comprising siloxyl units of M^{Vi} and/or D^{Vi} type, resins of $MM^{Vi}DD^{Vi}Q$ type being very particularly preferred;
- λ/ optionally at least one colorant;
- φ/ optionally at least one other functional additive.

14. The composition as claimed in claim 12 or 13, characterized in that it is an RTV composition and in

that its POS α and/or ρ constituent(s) is(are) chosen from alkenylsilyl POSs having a viscosity η at 25°C such that:

$$200 \leq \eta \leq 200\ 000 \text{ mPa·s}$$

preferably, $500 \leq \eta \leq 100\ 000$ mPa·s

15. A process for the preparation of the composition as claimed in any one of claims 1 to 14, characterized:

- in that the catalytic combination γ is obtained:
  - either by mixing the inhibitor **γ.2** with a solution/dispersion of catalyst **γ.1**, preferably in an optionally vinyl-comprising polysiloxane oil,
  - or by mixing the catalyst **γ.1** in a dispersion of the inhibitor **γ.2** in a silicone oil, preferably a vinyl-comprising silicone oil, with a viscosity of less than or equal to 100 000 mPa·s at 25°C;
- and in that:
  a) first of all a portion of the constituents, with the exception of the catalytic combination γ, is mixed;
  b) heating is carried out, preferably under vacuum;
  c) cooling is carried out;
  d) and then the remainder of the constituents, except for the catalytic combination γ, is added with stirring to the premix thus obtained and, finally, the catalytic combination γ is added.

16. The application, as adhesive, of the composition as claimed in any one of claims 1 to 14 or obtained by the process as claimed in claim 15.

17. An adhesive, in particular characterized in that it comprises the composition as claimed in any one of claims 1 to 14 or obtained by the process as claimed in claim 15.